Food and Drug Administration
Center for Food Safety and Applied Nutrition
Office of Special Nutritionals

ARMS#

13009

7 - PROCEDURES

[redacted]

printed 02/04/98 0421 **This copy for ==> Medical Records**
01/28/98 admit 02/03/98 discharge

Hematology

Units:	Reference:		Collection Date: 02/01/98	01/30/98	01/29/98	01/28/98
			Collection Time: 0630	0355	0510	1710
		CBC				
X 10^3	4.8-10.8	wbc	8.5	9.8	**11.2H**	7.3
X 10^6	4.20-5.40	rbc	**3.86L**	**3.55L**	**3.68L**	4.26
g/dl	12.0-16.0	hemoglobin	**11.5L**	**10.4L**	**10.8L**	12.5
%	37.0-47.0	hematocrit	**33.9L**	**30.8L**	**32.1L**	37.3
uM3	80.0-100.0	mcv	87.7	86.8	87.3	87.5
pg	27.0-31.0	mch	29.8	29.3	29.3	29.3
g/dl	33.0-37.0	mchc	34.0	33.8	33.6	33.5
%	11.5-14.5	rdw	12.8	12.8	12.6	12.6
X 10^3	140-440	platelets	225	183	203	240
X 10^3	.6-3.3	lymphocytes	2.2	2.1	2.6	3.1
X 10^3	.1-1.1	monocytes	.7	.7	.9	.4
X 10^3	2.0-7.5	granulocytes	5.6	7.0	**7.8H**	3.9
		Manual Differential				
%	20-70	segs			66	
%	0-10	bands			1	
%	6-33	lymphs			21	
%	0-11	monos			10	
%	1-3	eos			2	
		Morphology				
	Normal	RBC Morphology			Normal	

Chemistry

Profiles

Units:	Reference:		Collection Date: 01/30/98	01/29/98	01/28/98
			Collection Time: 0355	0510	1710
		Fasting?	FASTING	UNKNOWN	UNKNOWN
		Fasting?			UNKNOWN
MG/DL	70-110	Glucose	109	**114H**	**122H**
MG/DL	70-110	Glucose			**122H**
MG/DL	7-18	BUN	**5L**	11	14
MG/DL	7-18	BUN			14
MG/DL	0.6-1.0	Creatinine			0.8
MMOL/L	136-146	Sodium	138	139	140
MEQ/L	3.6-5.2	Potassium	3.7	4.1	3.9
MOL/L	98-106	Chloride	**107H**	**108H**	105
MMOL/L	22-29	CO2	23	22	24
G/DL	6.4-8.2	Total Protein			6.7
G/DL	3.2-5.1	Albumin			3.8
MG/DL	8.8-10.5	Calcium			8.9
MG/DL	2.5-4.9	Phosphorus			**2.3L**
MG/DL	0.0-1.0	Total Bilirubin			0.2

Legend
L = Low, H = High
bold= abnormal

continued [redacted]

000002

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[redacted]

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EXH E
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[redacted]

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01/28/98 admit 02/03/98 discharge

Chemistry

Profiles

		Collection Date:	01/30/98	01/29/98	01/28/98
		Collection Time:	0355	0510	1710
Units:	Reference:				
MG/DL	2.6-6.0	Uric Acid			4.6
MG/DL	0-200	Cholesterol			154
MG/DL	20-160	Triglycerides			91
U/L	50-136	Alk Phos			100
U/L	15-37	SGOT			18
IU/L	80-220	LDH			116

Serum Analytes

		Collection Date:	02/03/98	02/02/98	02/01/98	01/31/98	01/30/98	01/30/98
		Collection Time:	0540	0524	0630	0500	1500	0355
Units:	Reference:							
MG/DL	0.6-1.0	Creatinine						0.6
MEG/L	1.8-2.4	Magnesium	2.0	1.8	1.8	**1.7L**	2.1	**1.5L**

		Collection Date:	01/29/98	01/28/98
		Collection Time:	0510	1710
Units:	Reference:			
MG/DL	0.6-1.0	Creatinine	0.7	
MEG/L	1.8-2.4	Magnesium	**1.6L**	**1.5L**

Cardiac Enzymes

		Collection Date:	01/29/98	01/29/98	01/28/98
		Collection Time:	1730	0015	1710
Units:	Reference:				
U/L	21-215	Random CPK			66
U/L	21-215	CPK 8hr		**305H**	
NG/ML	.0-5.0	CKMB 8hr		**37.5H**	
%	0.0-3.0	CKMB Calc 8hr		**12.3H**	
U/L	21-215	CPK 24hr	164		
NG/ML	.0-5.0	CKMB 24hr	**13.9H**		
%	0.0-3.0	CKMB Calc 24hr	**8.5H**		

Legend
L = Low, H = High
bold= abnormal

continued [redacted]

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[redacted]

Toxicology

		Collection Date: 01/28/98
		Collection Time: 2130
Units:	Reference:	
	1.005-1.035 U,Spec Gravity:	1.017
	NEGATIVE U,Alcohol	negative
	NEGATIVE U,Amphetamines	**POSITIVE***
	NEGATIVE U,Barbiturates	NEGATIVE
	NEGATIVE U,Benzodiazepin	NEGATIVE
	NEGATIVE U,Cocaine	NEGATIVE
	NEGATIVE U,Opiates	NEGATIVE
	NEGATIVE U,Tetrahydrocan	NEGATIVE

Coagulation

		Collection Date: 02/01/98	01/30/98	01/29/98	01/28/98
		Collection Time: 0630	0355	0015	1710
Units:	Reference:				
sec	11.0-14.0	Protime			12.1
		INR			1.02f
sec	< 30	PTT	23	>120f	>120f 24

01/30/98 0355 PTT CALLED TO UNIT TO [redacted] 01/30/98 04:50. [redacted]

01/29/98 0015 PTT REPEATED & CONFIRMED PTT. CALLED TO [redacted].01/29/98 00:57. [redacted]

[redacted] (04/27/95 -- Current)
ANTICOAGULANT RANGE:
MODERATE INTENSITY 2.0-3.0
HIGH INTENSITY 2.5-3.5

Urinalysis

		Collection Date: 01/29/98	01/28/98
		Collection Time: 1940	2130
Units:	Reference:		
		Dipstick	
negative	Glucose	negative	negative
negative	Bilirubin	negative	negative
negative	Ketones	negative	negative
<=1.035	SpecificGravity	1.010	>=1.030
negative	Blood	negative	negative
4.5-9.0	pH	6.0	6.0
negative	Protein	negative	**30 mg/dl***
<=1.0E.U	Urobilinogen	0.2 E.U.	0.2 E.U.
negative	Nitrate	negative	negative
negative	Leuk Esterase	negative	**trace***

Legend
f = Footnote
bold= abnormal

continued [redacted]

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[redacted]

[redacted]

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01/28/98 admit 02/03/98 discharge

Urinalysis

		Collection Date:	01/29/98	01/28/98
		Collection Time:	1940	2130
Units:	Reference:			
		Microscopic		
clear		Urine Character		**sl hazy***
		Urine Color		yellow
0-2/hpf		WBC/HPF		**0-2/hpf***
0-2/hpf		RBC/HPF		negative
		Squamous Epith		**1+***
		Renal Epith		negative
negative		Bacteria		**1+***
negative		Amorphous		negative
		Crystals		negative
negative		Mucus		**rare***
0-2/lpf		Hyaline Cast		negative

Blood Bank Cumulative Summary

Collection Date: 01/29/98
Collection Time: 1730

Blood Group and Type
ABO Rh type: O POS

Antibody Screen and Identification
Antibody Screen: negative

Ordered Procedures that are Pending

Test	Drawn Date/Time	Status
MISC	02/02/98 0524	Pending
MISC	02/02/98 0524	Pending
UA	01/28/98 2211	Pending

bold= abnormal

end of report [redacted]

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[redacted]

13009
EXHE
Pg 30 of 45

[redacted]

[redacted]

FINAL

[redacted] F 38 YRS
02/02/98

ACC#: [redacted]
MR#:
RM#:
DR.

DATE COLLECTED: 02/02/98
TIME COLLECTED: 0524

		REFERENCE RANGE
HOMOCYSTEINE, TOTAL PLASMA	9	3-14 UMOL/

THE RISK FOR CORONARY VASCULAR DISEASE INCREASES PROGRESSIVELY WITH HOMOCYST(E)INE CONCENTRATIONS ABOVE 9 UMOL/L. FOR EXAMPLE. A 3.4 TIMES GREATER RISK IS ASSOCIATED WITH A CONCENTRATION >15.8 UMOL/L AS COMPARED TO <14.1 UMOL/L. SEE JAMA, 268; NO. 7, P.879,1992.

Unless noted, all test(s) performed at [redacted]

DATE PRINTED: 02/05/98 Page 1 END OF REPOR

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EXHIBIT
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000006

[redacted]

[redacted]

MEDICAL RECORD DEPARTMENT

DEPARTMENT OF IMAGING - [redacted]

PATIENT NAME: [redacted]
MR#: [redacted]
DOB: [redacted]

[redacted] **MD**

DATE OF EXAM: 01/28/98
SEQUENCE #: [redacted]

INDICATION: [redacted] CHEST PAIN

CHEST PORTABLE:
The heart is of normal size and contour. The mediastinum, hilar structures and pulmonary vascularity are within normal limits. The lungs are well expanded and clear and the costophrenic angles are acute. The bony structures are unremarkable.

IMPRESSION:
Negative study of the chest.

Dictated by: [redacted] DO

Released by:
[redacted] 01/29/98 10:08

D: 01/29/98 7:13 A
T: 01/29/98 9:30 A
J: [redacted]
D: [redacted]

cc: [redacted] DO
X-ray file copy

FILMS AND REPORTS STORED AT [redacted]

13009
EXH E
PG 45 OF 45

[redacted] ID: [redacted] 28-Jan-1998 17:07:46 [redacted]

[redacted]

Female Caucasian

[redacted]

Vent. rate 111 bpm
PR interval 168 ms
QRS duration 82 ms
QT/QTc 330/448 ms
P-R-T axes 64 29 84

[redacted]

01/28/98 17:07

INTERPRETATION: Abnormal EKG. Sinus tachycardia. Acute inferior wall myocardial infarction with some reciprocal changes in the anterior leads.

[redacted]

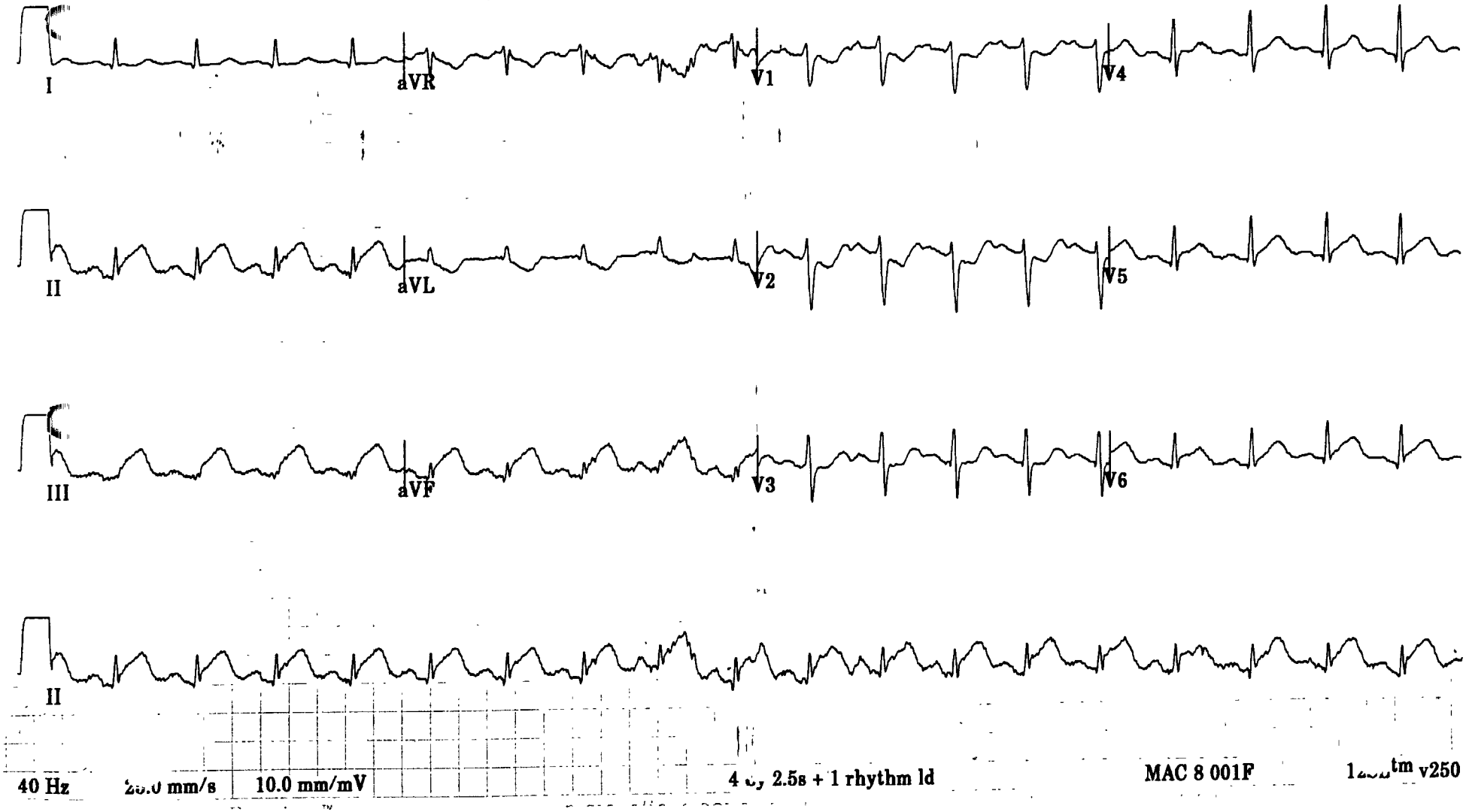
[redacted] MD

Technician: [redacted]
Test ind: [redacted]
Meds: UNKNOWN

Referred by:

Reviewed by:

000008 — 13009 EXHIBIT pg 32045



[redacted] ID: [redacted] 28-Jan-1998 18:11:37 [redacted]

[redacted]
Female Caucasian

Room: [redacted]
Loc: [redacted]

Vent. rate 86 bpm
PR interval 182 ms
QRS duration 94 ms
QT/QTc 346/414 ms
P-R-T axes 43 31 74

Technician: [redacted]
Test ind [redacted]
Meds: UNKNOWN

Referred by:

Reviewed by:

13009 EXHIBIT 19 330F45

000009

40 Hz 25.0 mm/s 10.0 mm/mV 4 by 2.5s + 1 rhythm ld MAC 8 001F 12SL^{tm} v250

[redacted] ID: [redacted] 28-Jan-1998 18:35:30 [redacted]

[redacted]

Female Caucasian

Vent. rate 71 bpm
PR interval 198 ms
QRS duration 92 ms
QT/QTc 374/406 ms
P-R-T axes 49 4 30

Room [redacted]
Loc: [redacted]

[redacted] 01/28/98 18:35

INTERPRETATION: Normal sinus rhythm. Compared with the previous tracing the ST segments have returned to baseline and this is an essentially normal EKG.

[redacted]

Technician [redacted]
Test ind [redacted]

[redacted] MD

Meds: UNKNOWN

Referred by:

Reviewed by:

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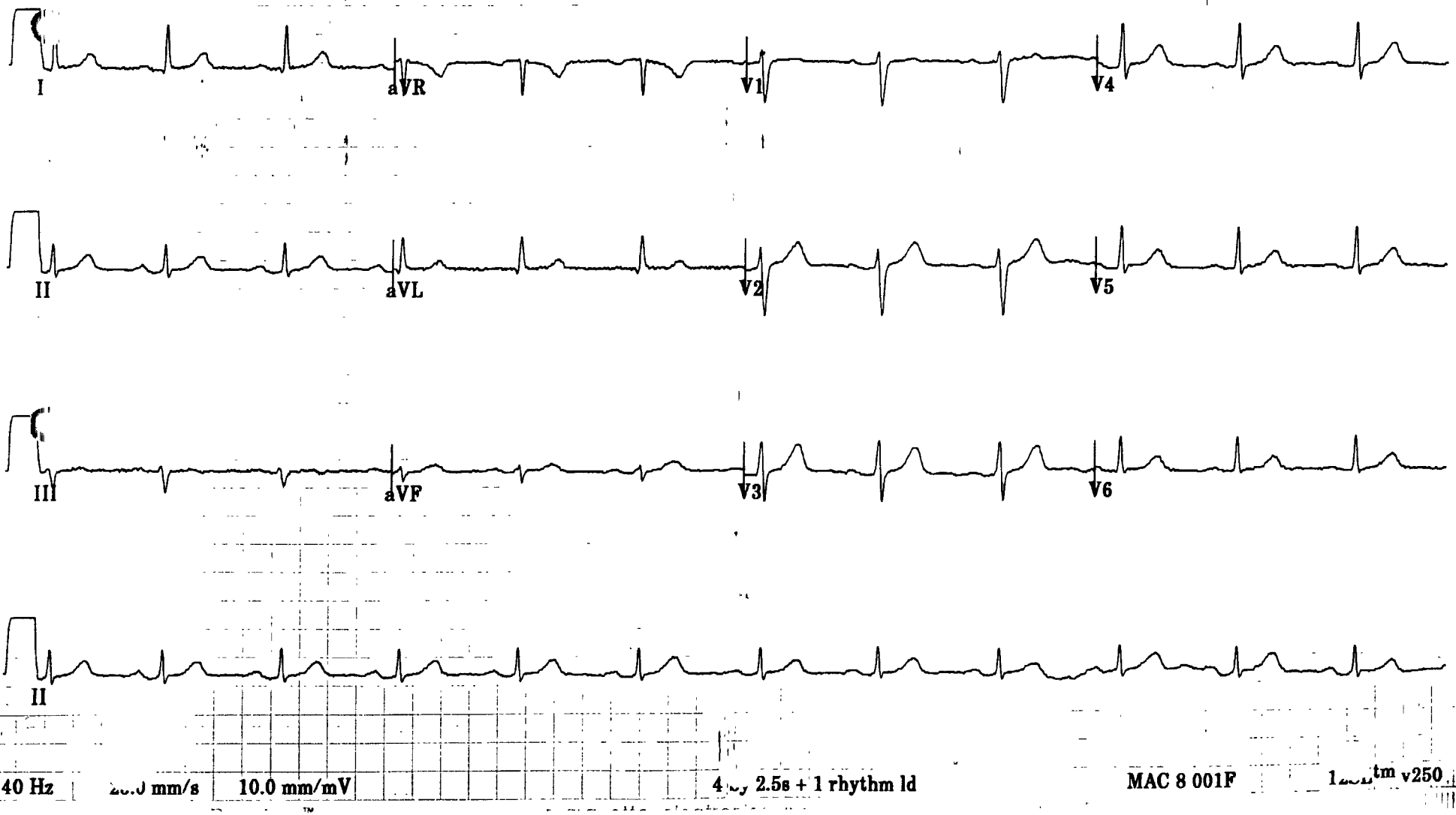


40 Hz [illegible] mm/s 10.0 mm/mV 4 [illegible] 2.5s + 1 rhythm ld MAC 8 001F 1[illegible]tm v250

[redacted] ACUTE INF WALL M ID: [redacted] 29-JAN-98 07:04 [redacted]

25mm/s
10mm/mV
40Hz
Pgm 004A
v206

Med:
[redacted] Ht: Wt:
Sex: F Race:
Loc: [redacted] Room: [redacted]

Vent. rate	81	BPM	
PR interval	180	ms	
QRS duration	92	ms	
QT/QTc	360/414	ms	
P-R-T axes	52	0	13

[redacted]

01/29/98 07:04

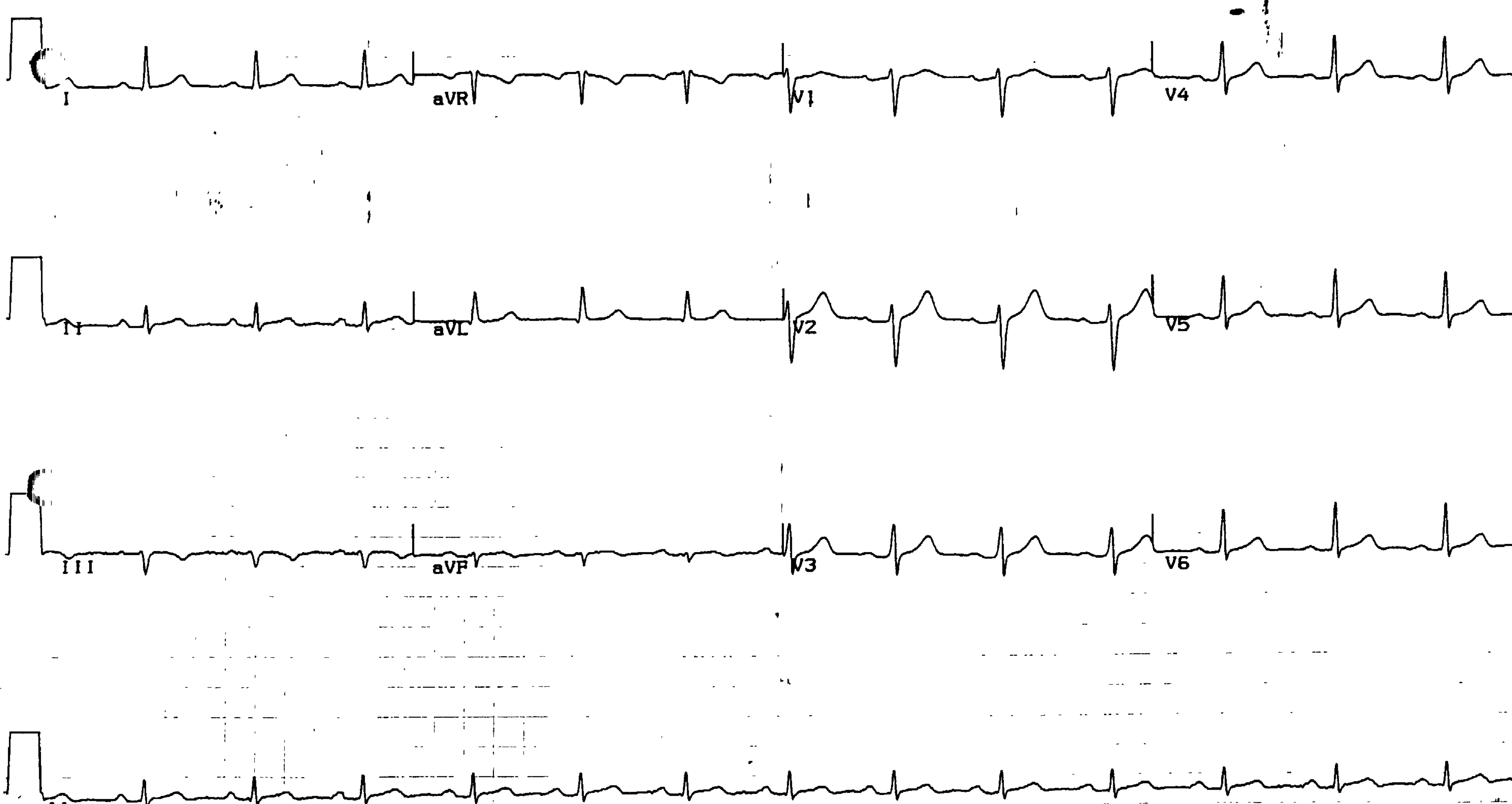
INTERPRETATION: Abnormal electrocardiogram. Normal sinus rhythm. There are some mild nonspecific T-wave inversions in III and AVF, which is nondiagnostic and the rest of the EKG is unremarkable.

[redacted]

[redacted] MD

Referred by: [redacted]

Reviewed by:



000011

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EXH E
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[redacted]

ID: [redacted] 30-JAN-98 05:44 [redacted]

25mm/s
10mm/mV
100Hz
Pgm 004A
v20F

Med: None
Age: 57in 218lb
Sex: F Race: Cauc
Loc: Room: [redacted]

Vent. rate 85 BPM
PR interval 164 ms
QRS duration 92 ms
QT/QTc 352/416 ms
P-R-T axes 49 -4 -20

[redacted]

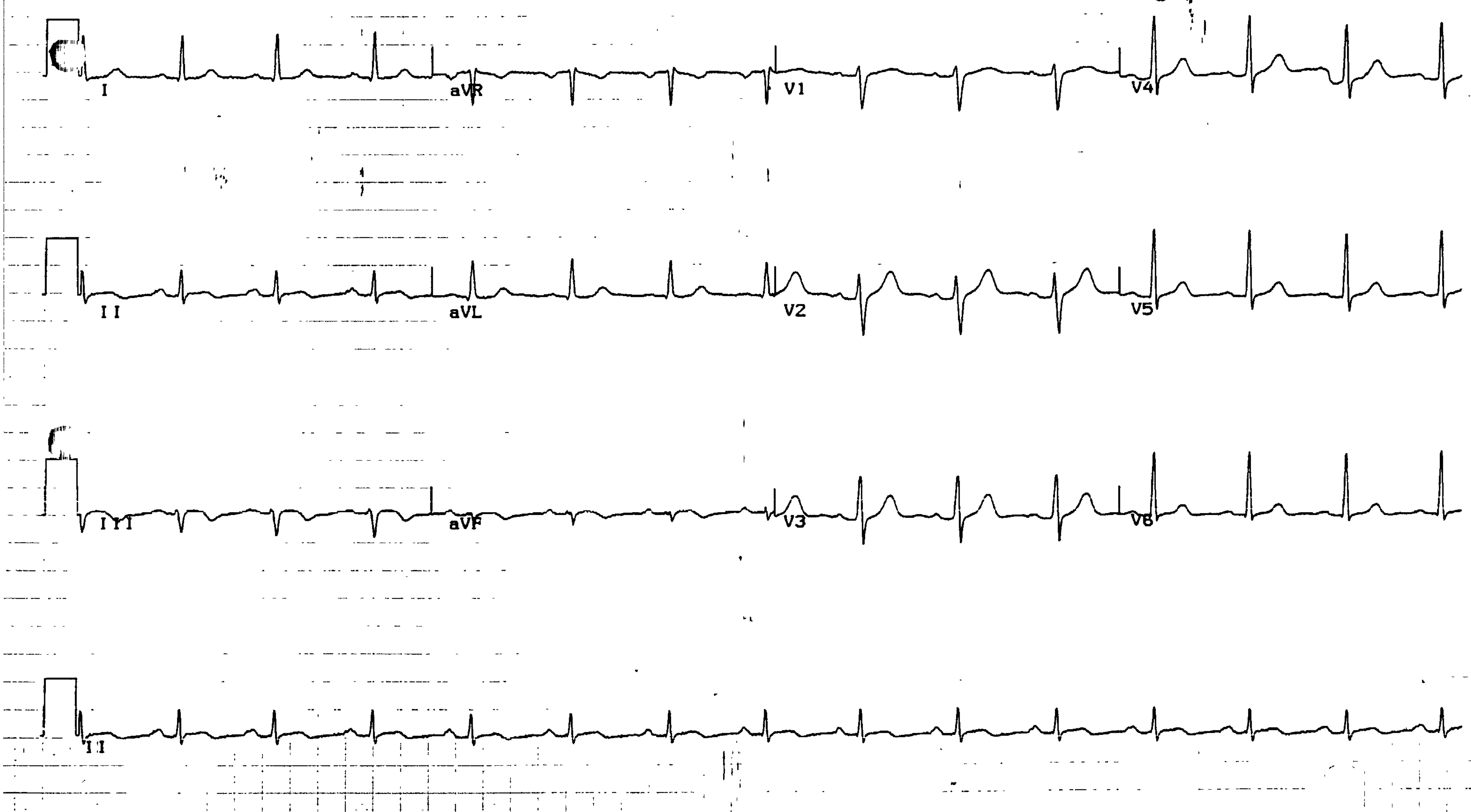
1/30/98 5:44

INTERPRETATION: Abnormal EKG. Normal sinus rhythm. There are some nonspecific repolarization abnormalities primarily in II, III and aVF suggestive of ischemia but still rather nonspecific and largely unchanged from the previous day's tracing.

[redacted]

[redacted] MD

Referred by: [redacted] Reviewed by:



000012 13009 EXH E Pg 36 of 45

[redacted] CHEST PAIN ID: [redacted] 30-JAN-98 14:09 [redacted]

000013

25mm/s
10mm/mV
40Hz
Pgm 004A
v206

Med: [redacted]
Ht: Wt:
Sex: F Race: Cau[redacted]
Loc: [redacted] Room: [redacted]

Vent. rate	103	BPM
PR interval	204	ms
QRS duration	96	ms
QT/QTc	336/436	ms
P-R-T axes	65 -3	3

[redacted]

01/30/98 14:09

INTERPRETATION: Abnormal electrocardiogram. Sinus tachycardia. First degree AV block. There is again a rise in the ST segments inferiorly with some presumed reciprocal changes across the right precordial leads compatible with inferior wall injury.

[redacted] MD

Referred by: [redacted]

Reviewed by:

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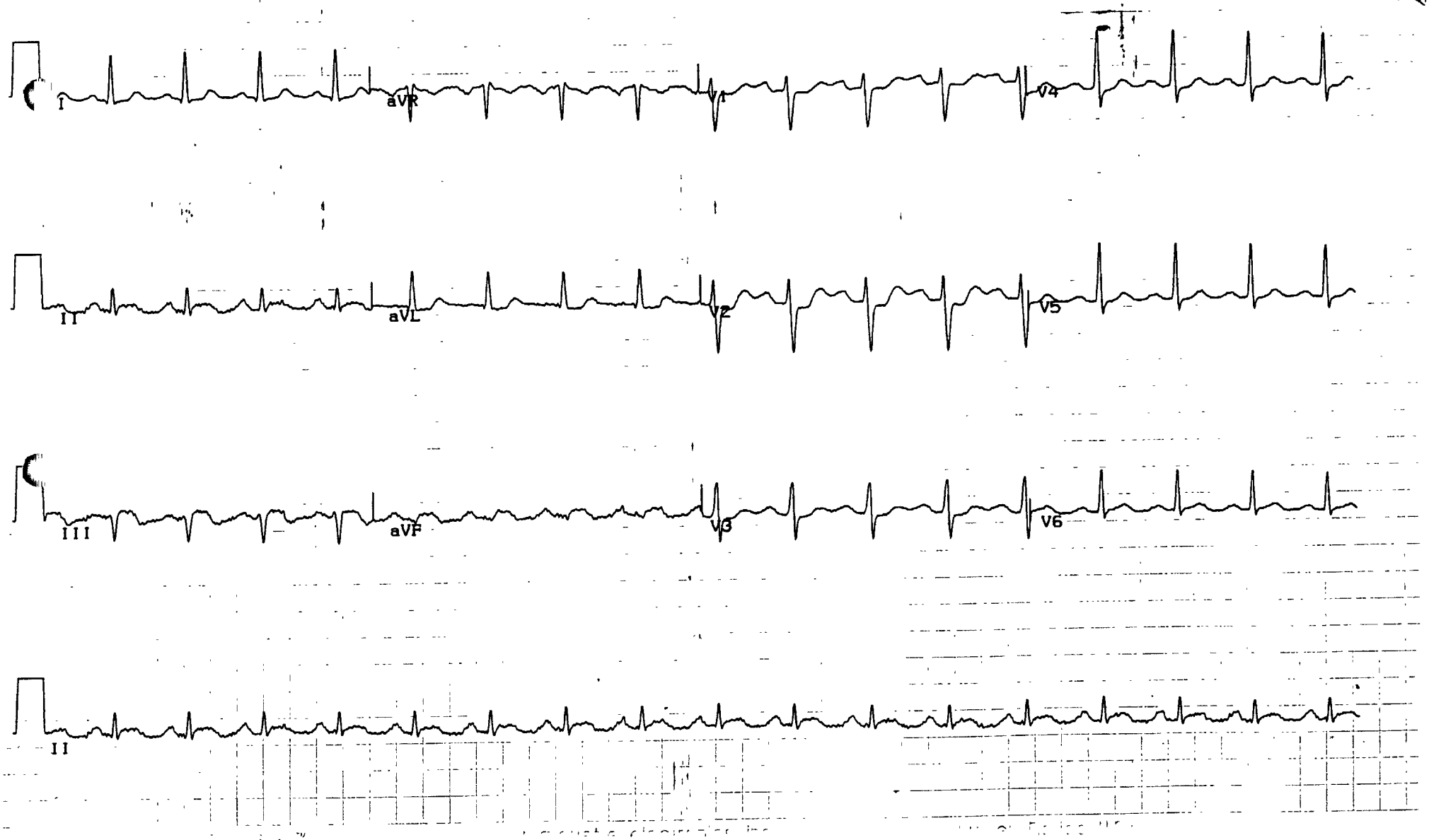

[redacted] CHEST PAIN ID: [redacted] 30-JAN-98 14:42 [redacted]

25mm/s
10mm/mV
40Hz
Pgm 004A
v206

Med:
[redacted] Ht: Wt:
Sex: F Race: Cauc [redacted]
Loc: [redacted] Room: [redacted]

Vent. rate 94 BPM
PR interval 176 ms
QRS duration 92 ms
QT/QTc 348/435 ms
P-R-T axes 66 -4 -42

[redacted]

01/30/98 14:42

INTERPRETATION: Abnormal electrocardiogram. Normal sinus rhythm. There is still ST segment elevation inferiorly, although it is minimal at this point. Cannot rule out some ongoing inferior wall injury.

[redacted]

[redacted] MD

Referred by: [redacted]

Reviewed by:

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EXH E
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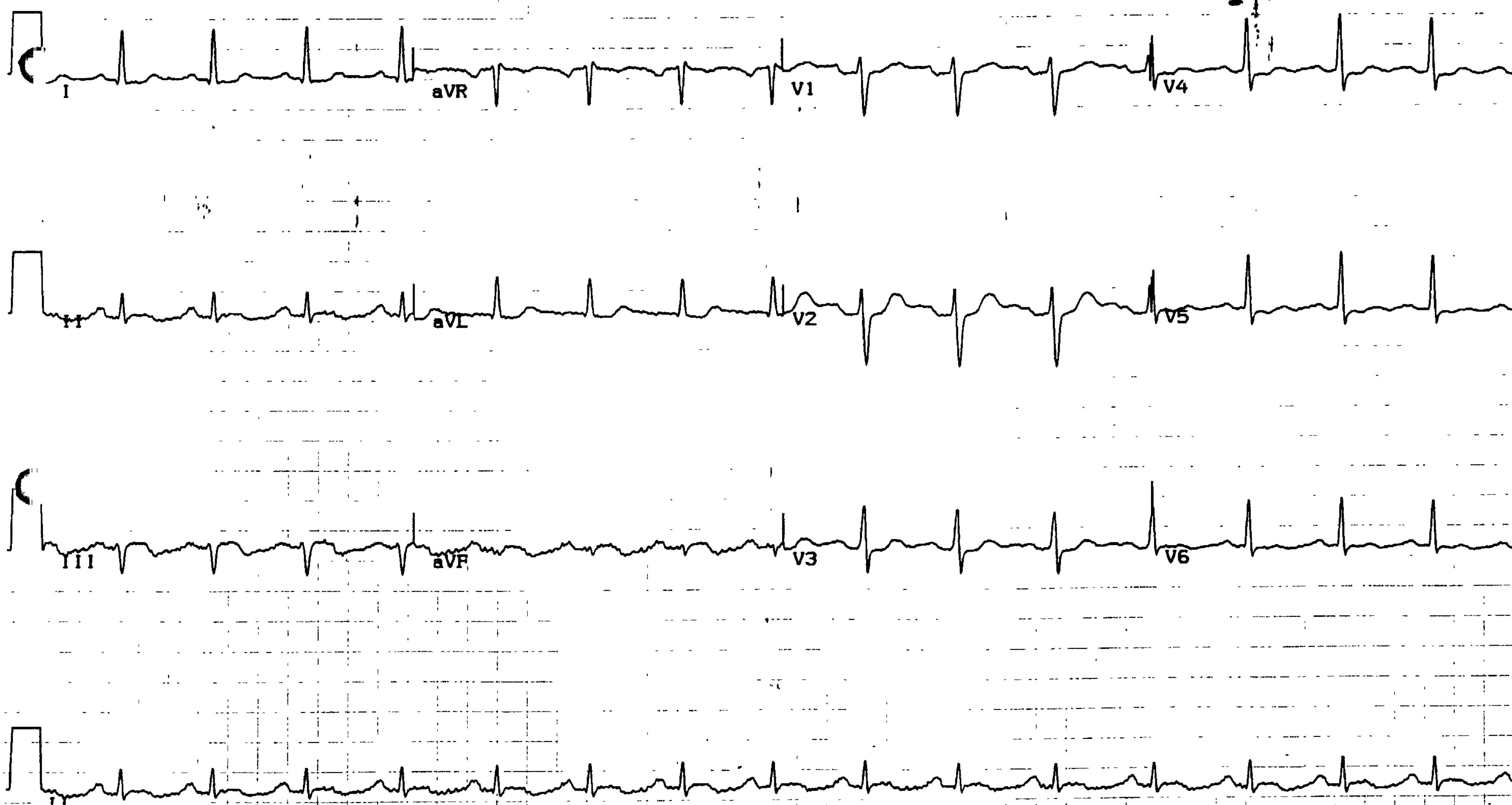


[redacted] [redacted]

[redacted] ACUTE MI ID: [redacted] 30-JAN-98 16:05 [redacted]

25mm/s
10mm/mV
40Hz
Pgm 004A
v206

Med: [redacted] Ht: Wt: [redacted]
Sex: F Race: Cauc [redacted]
Loc: [redacted] Room: [redacted]

Vent. rate	97 BPM
PR interval	164 ms
QRS duration	92 ms
QT/QTc	348/440 ms
P-R-T axes	56 5 -44

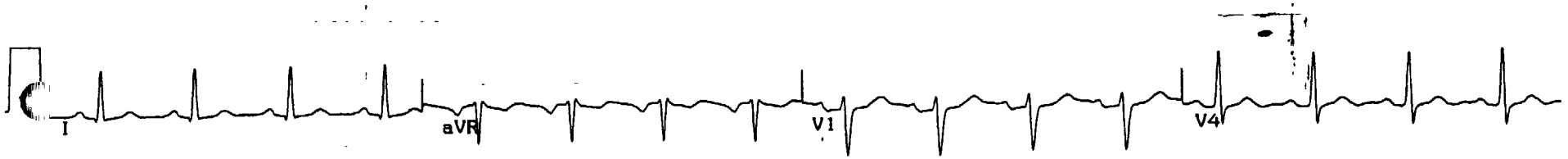
01/30/98 16:05

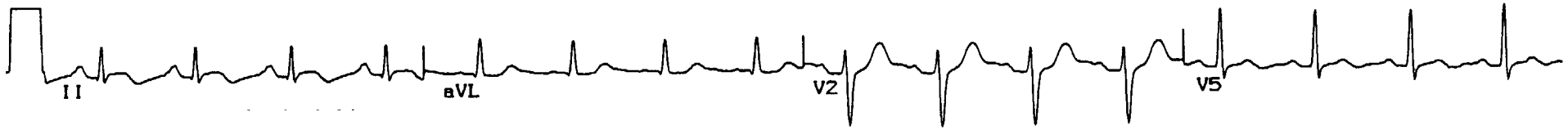
INTERPRETATION: Abnormal electrocardiogram. Normal sinus rhythm. There is again slight upward coving of the ST segments inferiorly accompanied by a deeper T-wave inversion suggestive of an evolving inferior wall myocardial infarction.

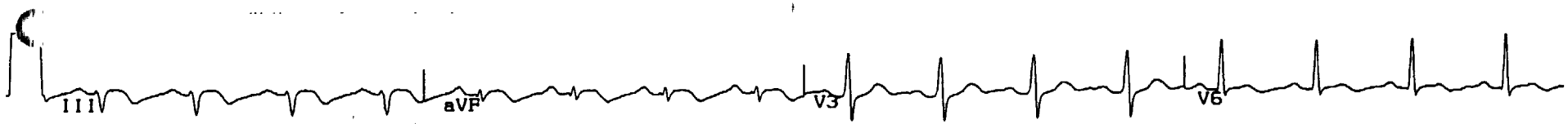
[redacted] MD

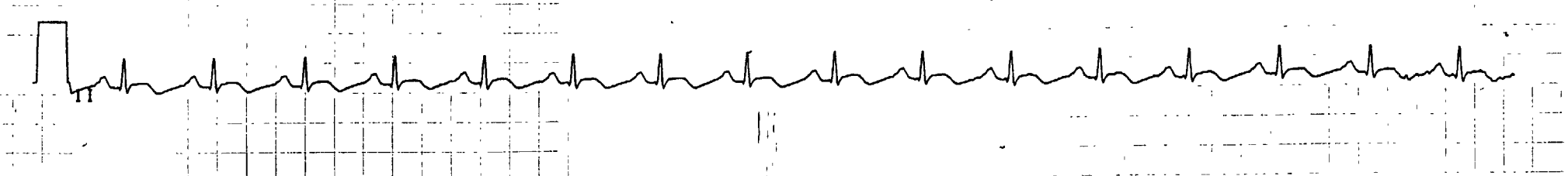
Referred by: [redacted]

Reviewed by:









000015

[redacted] ID: [redacted] 31-JAN-98 11:12 [redacted] [redacted]

25mm/s
10mm/mV
40Hz
Pgm 004A
v206

Med: [redacted] Ht: Wt: [redacted]
Sex: F Race: Cauc [redacted]
Loc: [redacted] Room: [redacted]

Vent. rate 84 BPM
PR interval 172 ms
QRS duration 88 ms
QT/QTc 344/401 ms
P-R-T axes 46 -5 -10

01/31/98 11:12

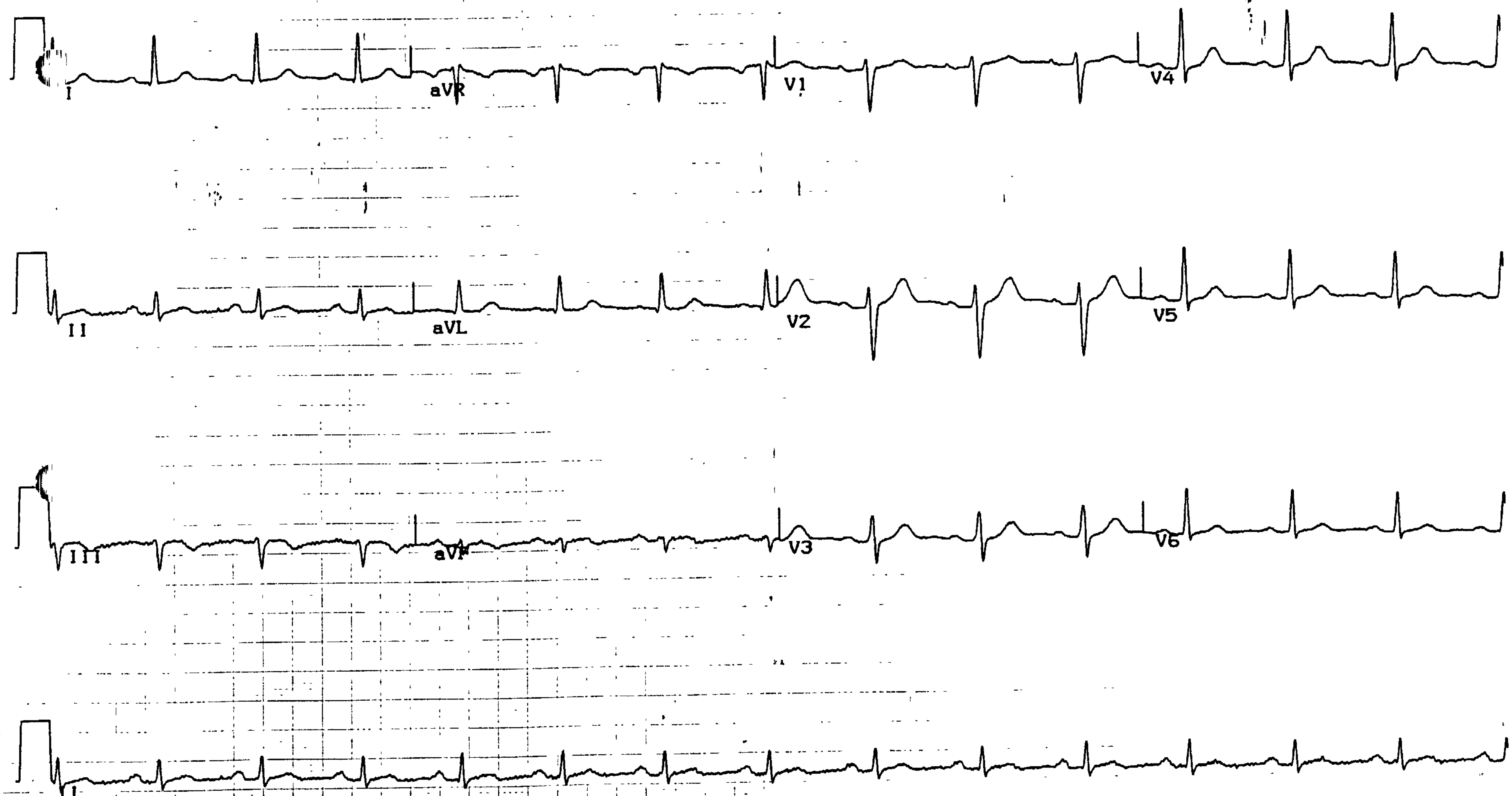
INTERPRETATION: Normal sinus rhythm with some mild nonspecific repolarization abnormalities in III and AVF, unchanged from the previous EKG.

[redacted]

[redacted] MD

Referred by: [redacted]

Reviewed by:



000016

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[redacted] ID: [redacted] 01-FEB-98 07:58 [redacted]

25mm/s
10mm/mV
40Hz
Pgm 004A
v206

Med: [redacted] Ht: Wt:
Sex: F Race: Cauc
Loc: [redacted] Room: [redacted]

Vent. rate	100 BPM
PR interval	160 ms
QRS duration	88 ms
QT/QTc	344/441 ms
P-R-T axes	58 -15 45

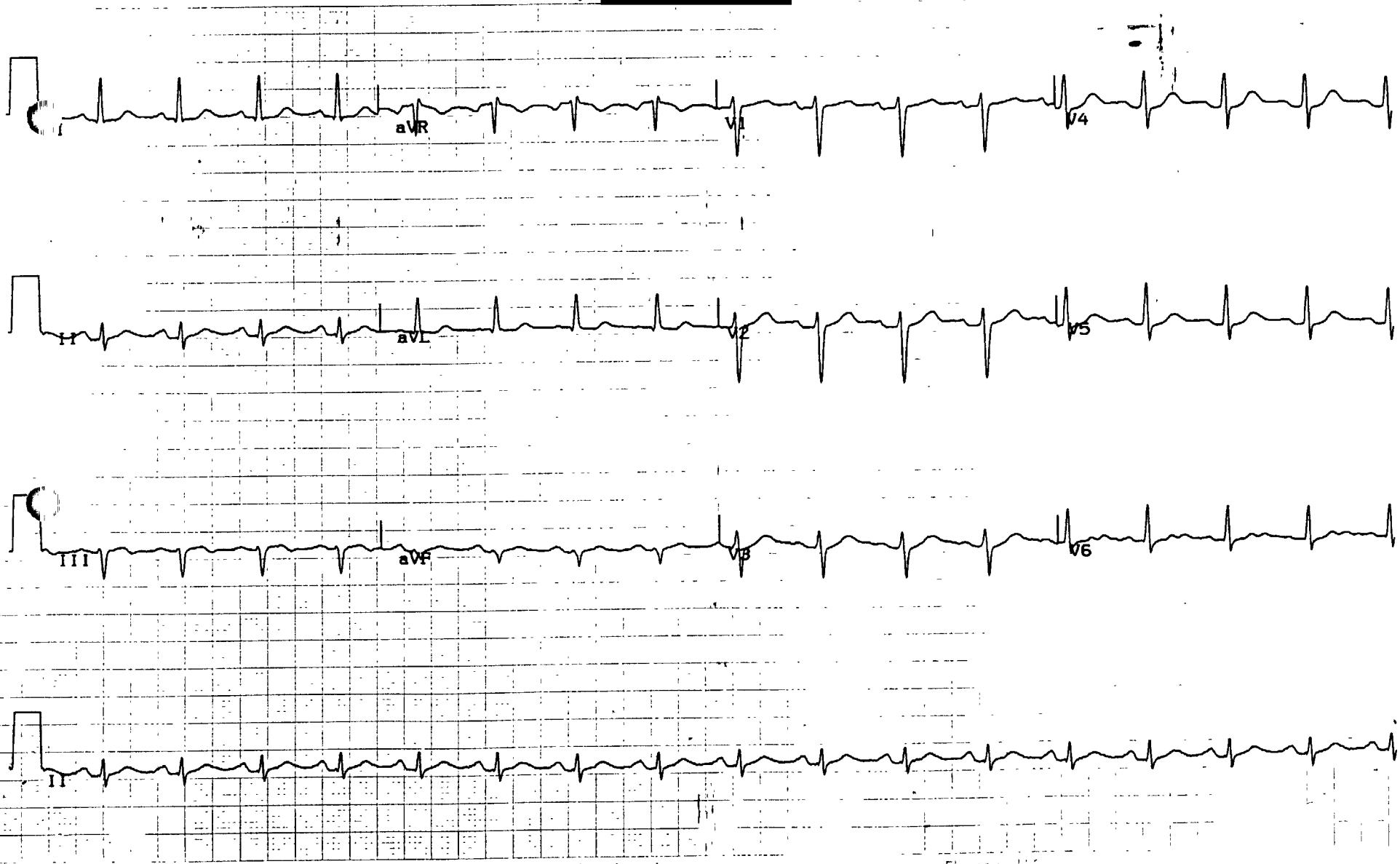
02/01/98 07:58

[redacted]

INTERPRETATION: Abnormal EKG. Borderline sinus tachycardia. Some mild nonspecific ST-T wave change largely unchanged from previous EKG's.

[redacted] [redacted] MD

Referred by: [redacted] Reviewed by:



[redacted]

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000017

[redacted]

[redacted]

MEDICAL RECORD DEPARTMENT

13009
EXH E
PG 1 OF 45

OPERATIVE REPORT

PATIENT NAME: [redacted]

MR#: [redacted]
ACCT# [redacted]

DATE OF ADMISSION: 01/28/98
DATE OF SURGERY: 01/30/98

ADMITTING PHYSICIAN: [redacted] MD
REFERRING PHYSICIAN:
SURGEON: [redacted] MD

PREOPERATIVE DIAGNOSIS: Coronary artery disease

POSTOPERATIVE DIAGNOSIS: Same

TITLE OF OPERATION: Left heart catheterization, selective cine coronary arteriography, left ventriculography

INDICATIONS: Mrs. [redacted] is a 38 year old white female who was admitted to the hospital with an acute inferior myocardial infarction. It appeared to have been aborted with the use of intravenous heparin and nitroglycerin, and reteplase. Because of the young age and the aborted nature of her infarct, it was elected to proceed on with coronary angiography.

The patient's right femoral area was prepped and draped in the usual manner. Under 1% Xylocaine anesthesia, a percutaneous puncture of the right femoral artery was made using the Seldinger technique. A 7 French vascular sheath was placed within the right femoral artery. Through the indwelling arterial sheath a 7 French pigtail catheter was inserted and with the use of the J tip guide wire positioned in the ascending aorta. Pressures were obtained using the Statham P-23 DBI pressure transducer and a Mennen Medical Physiologic Recorder. The catheter was advanced across the aortic valve and pressures were repeated within the left ventricle. At this point the pigtail catheter was connected to a power injector and left ventriculograms performed in the RAO and LAO views. The pigtail catheter was reconnected to the pressure transducer and pressures were again repeated within the left ventricle and a continuous pullback pressure across the aortic valve was recorded. At this point the pigtail catheter was removed and exchanged for a 7 French 4 cm Judkins left coronary catheter which, with the use of the J tip guide wire, was positioned in the ascending aorta. The catheter was advanced to the ostia of the left coronary artery and multiple hand injections of dye were performed in a various positions. The left coronary catheter was then removed and replaced with a 7 French 4 cm Judkins right coronary catheter which, with the use of the J tip guide wire, was positioned in the ascending aorta. The catheter was advanced to the ostia of the right coronary artery and multiple hand injections of dye were performed in various positions. The right coronary catheter was then removed. The femoral sheath was removed. Vasoseal was used for hemostasis. The patient tolerated the procedure well

[redacted]

[redacted]

MEDICAL RECORD DEPARTMENT

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EXH E
PG 16 OF 45

OPERATIVE REPORT

PATIENT NAME: [redacted]

MR#: [redacted]
ACCT#: [redacted]

and there were no complications. At the end of the procedure the patient had excellent dorsalis pedis and posterior tibial pulses.

[redacted] MD

R: 01/30/98 8:25 A
T: 01/30/98 11:32 A
J: [redacted]
D:

cc: [redacted] MD

[redacted]

[redacted]

MEDICAL RECORD DEPARTMENT

13009
EXH E
pg 17 of 45

CARDIAC CATHETERIZATION SUMMARY

PATIENT NAME: [redacted]

ACCOUNT#: [redacted] MR#: [redacted]
DATE: 1/30/98 ROOM#: [redacted]
PRIMARY PHYSICIAN: [redacted] MD [redacted]
DOB: [redacted] HT: 57 WT: 218 CATH#: [redacted]

HISTORY: Mrs. [redacted] is a 38 year old nurse who works for Dr' [redacted] and [redacted] Two days ago while at work she noticed sudden onset of severe chest discomfort associated with dyspnea, diaphoresis, and nausea. She was brought immediately to the Emergency Room at [redacted] where an electrocardiogram was compatible with extensive inferolateral myocardial infarction. She was given intravenous Heparin, intravenous Nitroglycerin, and thrombolytic therapy in the form of Reteplase within 2 hours of the onset of her chest pain. Within 4 hours of the onset of her chest pain, her pain had subsided and her electrocardiogram had returned to normal. There was minimal CPK elevation. Because of her young age, female status, and what appears to be an aborted inferior infarct, cardiac catheterization was recommended. Prior to this episode of chest pain, there has been no prior history of any significant angina. There has been no known prior history of hypertension, diabetes or abnormal lipids. The patient is a nonsmoker. There is no family members with a history of coronary disease.

PHYSICAL EXAMINATION: Physical exam reveals a healthy white female in no distress. Blood pressure 136/80 mm of mercury. Pulse 72 beats per minute and regular. Neck veins are not distended. Both carotids show normal upstroke without evidence of bruits. Thyroid is not palpable. Chest is clear. Auscultation of the heart revealed the first and second sounds to be normal. There are no murmurs, gallops, or rubs appreciated. Examination of the abdomen is unremarkable. All pulses are palpable. There is no evidence of edema.

PRIOR DIAGNOSTIC STUDIES: Electrocardiogram on admission shows ST segment elevation in leads II, III, AVF and V4 through V6 with ST segment depression in V1 and V2. With pain relief, her electrocardiogram returned to normal. Peak CPK was 305. Chest x-ray is normal.

PURPOSE AND METHODS: The cardiac catheterization is undertaken in Mrs. [redacted] to visualize her underlying coronary anatomy in view of her young age and recent aborted inferior infarct.

Left heart catheterization was undertaken via percutaneous puncture of the right femoral artery using the Seldinger technique. A 7 French pigtail catheter was used to record the left heart pressures using a

[redacted]

[redacted]

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CARDIAC CATHETERIZATION SUMMARY

NAME: [redacted]
DATE: 1/30/98

Statham P 23 DBI pressure transducer and a Mennon medical physiologic recorder. Pigtail catheter was likewise used in conjunction with the power injector to perform left ventriculograms in the RAO and LAO views. Judkins preformed right and left coronary catheters were used for the selective Cine coronary arteriograms utilizing hand injections of dye. All dye injections were made using Isovue contrast material and the selective Cine coronary arteriograms were recorded using digital angiography recorded on a computer disc.

ANGIOGRAPHIC RESULTS: Please refer to the photographs which were printed from the computer disc.

A-B: Right coronary artery, LAO cranial caudal view, proximal and distal segments respectively.

C: Right coronary artery, PA cranial caudal view.

D-E: Right coronary artery, RAO projection, proximal and distal segments respectively. The right coronary artery is a super dominant vessel. It has smooth walls throughout its entire course with no significant narrowing noted. The posterior descending coronary artery appears extremely small and appears to be amputated as designated by the arrows in B and C. This has the appearance of a totally obstructed posterior descending coronary artery. The remainder of the right coronary artery as noted shows no residual narrowing.

F-G: Left coronary artery, RAO projection, end diastole and end systolic respectively.

H-I: Left coronary artery, RAO caudal cranial views, proximal and distal segments respectively.

J-K: Left coronary artery, LAO projection, proximal and distal segments respectively.

L: Left coronary artery, hemi-axial view.

M: Left coronary artery, PA caudal cranial view. There is an area of 70% narrowing in the intermediate coronary artery as designated by the arrow in H, L, and M. The remainder of the course of the left coronary artery is free of significant coronary atherosclerosis.

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[redacted]

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CARDIAC CATHETERIZATION-SUMMARY

NAME: [redacted]
DATE: 1/30/98

N-O: Left ventriculogram, RAO projection, end-diastole and end-systole respectively.

P-Q: Left ventriculogram, LAO projection, end-diastole and end-systole respectively. There is a small area in the mid portion of the inferior wall that is hypokinetic as outlined by the dots in O. The remainder of the left ventricle contracts normally and vigorously. Estimated left ventricular ejection fraction is .55. There is no evidence of mitral regurgitation.

HEMODYNAMIC RESULTS: Please refer to the pressures listed on the attached sheath which were obtained at the time of left heart catheterization. As can be seen, they are slightly elevated. This is in keeping with the left ventricular dysfunction noted at the time of ventriculography as well as the use of the beta blocking agent.

DIAGNOSIS:

1. Arteriosclerotic cardiovascular disease, 70% narrowing mid portion of the intermediate coronary artery, probable total obstruction of the posterior descending coronary artery, presumed right coronary artery spasm.
2. Mid inferior wall hypokinetic area.
3. Mildly elevated left heart pressures.
4. These studies rule out significant aortic stenosis, subaortic obstruction or mitral regurgitation.

RECOMMENDATIONS: Mrs. [redacted] has evidence of routine atherosclerotic coronary artery disease with a lesion in her intermediate coronary artery. The posterior descending branch of her right coronary artery appears to have been totally obstructed. The electrocardiographic changes on her admission to the hospital, however, would suggest that the right coronary artery was totally involved at the time of her presentation. The remainder of the right coronary artery at the present time has no significant residual lesion suggesting that there may be an element of superimposed spasm as well. Mrs. [redacted] was given the option of proceeding on to balloon angioplasty to the intermediate coronary artery or since she will have to remain on longacting nitrates and calcium blocking agents for presumed right coronary spasm whether to treat medically and use a thallium exercise test as an indicator whether to intervene in the intermediate coronary lesion or not. She chose the latter approach. I therefore would suggest that she be placed on 2 baby aspirin a day, longacting Nitroglycerin, longacting calcium blocking agents, and be followed closely clinically to detect any evidence of recurrent right coronary spasm. A follow up intravenous Persantine thallium stress test will be undertaken to ascertain whether

[redacted]

DATE: 02/02/98
T[redacted]: 11:41 AM
GRADED EXERCISE TEST
PERSANTINE/BRUCE

REFERRING: [redacted]
ATTENDING: [redacted] M.D.

PATIENT: [redacted]

ID: [redacted]
ROOM #[redacted]
DOB: [redacted]
AGE: 38 HT: 67
SEX: F WT: 218
Serum Cholesterol: 154

MEDS: HEPARIN, ASA, COLACE, LOPRESSOR, NTG, MSO4, KCL.

Reason for test: S/P MI 1/28/98

REASON FOR ENDING TEST
FATIGUE

Resting HR: 113 Target Heart Rate: 161 Worst-case ST Level: -0.9 aVR
Resting SBP: 128 Worst-case ST Slope: -29 aVR
Resting DBP: 78

Max. TM Speed: 3.4
Max. TM Grade: 14.0

Impression: 57MG IV PERSANTINE

Patient exercised a total of 12:37 into stage 4 of a PERSANTINE/BRUCE protocol. Maximum predicted Heart Rate: 189. Heart Rate Achieved: 160, which is 85% of predicted. Work load achieved: 7.0 METS.

Maximum Double Product: 18788 Maximum BP: 128/ 78.

TEST CONCLUSION
1) NEGATIVE EKG TEST FOR ISCHEMIA
2) CHEST PRESSURE WITH IV PERSANTINE
3) NO ARRHYTHMIA
4) ACCELERATED CHRONOTROPIC RESPONSE TO EXERCISE
5) THALLIUM IMAGES PENDING

Physician [redacted]

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Patient: [redacted] Date: 02/02/98

Location: [redacted] [redacted]

Protocol: PERSANTINE/BRUCE Level J+ 60

Attending: [redacted] M.D. Slope J+ 20 to 80

Referring: [redacted]

EVENT	TIME	SPEED (mph)	GRADE (%)	HR (bpm)	BP (mm Hg)	VO_2 (l/min)	HR X BP	ST LEVEL (mm) II	ST LEVEL (mm) V_5	ST LEVEL (mm) WORST
REST	SUPINE			98	128/ 78	97.0	12544	0.7	0.2	-0.4 aUR
	SUPINE-HYPER			113	128/ 78	97.0	14464	0.7	0.1	-0.4 aUR
Stage 1	01:35	0.0	0.0	113	---/---	97.0	0	0.6	0.0	-0.3 aUR
	03:05	0.0	0.0	119	122/ 68	97.0	14518	0.5	0.0	-0.3 aUL
	04:36	0.0	0.0	138	122/ 70	97.0	16836	0.5	-0.1	-0.4 U_4
	06:05	0.0	0.0	158	110/ 72	97.0	17380	0.9	0.4	-0.5 aUL
	06:37	THALLIUM INJECTED								
Stage 2	01:38	1.7	10.0	156	---/---	97.0	0	1.0	0.5	-0.5 aUL
	03:00	1.7	10.0	157	110/ 70	97.0	17270	1.3	0.6	-0.7 aUR
Stage 3	01:38	2.5	12.0	159	---/---	97.0	0	1.3	0.5	-0.7 aUR
	03:00	2.5	12.0	160	104/ 50	97.0	16640	1.2	0.6	-0.7 aUR
Stage 4	00:00	2.5	12.0	160	---/---	97.0	0	1.2	0.6	-0.7 aUR
Stop exercise @12:37										
recovery	01:38	0.0	0.0	147	---/---	97.0	0	1.6	0.7	-0.8 aUR
	03:09	0.0	0.0	142	110/ 56	97.0	15620	1.1	0.5	-0.7 aUL
	04:20	0.0	0.0	138	110/ 56	97.0	15180	1.1	0.4	-0.6 aUL

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MEDICAL RECORD DEPARTMENT

[redacted]

NUCLEAR CARDIOLOGY - [redacted]

PATIENT NAME: [redacted]
MR#: [redacted]
[redacted] **DOB:** [redacted]
[redacted] MD
[redacted] MD
SEQUENCE #: [redacted] **DATE OF EXAM:** 02/02/98

SPECT IV PERSANTINE THALLIUM:

EXERCISE DATA: The patient was administered 57 mg of Persantine IV over a 4 minute period. She was then ambulated on a treadmill, on a Bruce protocol, achieving a peak heart rate of 160 beats per minute and a peak blood pressure 128/78. The patient had no chest pain. She did have some slight chest pressure with IV Persantine.

At peak exercise, the patient was administered approximately 3 mCi of thallous chloride. She was then imaged using the standard SPECT imaging techniques.

Thallium images reveal the quality to be good although the redistribution images are slightly mottled. There is a mild decrease in counts involving the basal portion of the inferior wall. This does not appear to change from stress to redistribution. The remainder of the myocardium appears to be well perfused. I see no evidence of Persantine or exercise induced ischemia.

IMPRESSION:

1. Mild chest pressure with Persantine.
2. No ischemic EKG changes.
3. Thallium images revealing a previous infarct of the basal inferior wall. I see no evidence of Persantine or stress induced ischemia.

[redacted], MD [redacted]

D 02/02/98 6:52 P
T: 02/03/98 7:07 A
J: [redacted]
D: [redacted]
cc: [redacted]

X-ray File Copy

[redacted]

FILMS AND REPORTS STORED AT [redacted]

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